

Work Order ID 98456-2

98456

Page 1

March-12-13 1:56:07 PM

Item ID: D6101-001

Accept

N9000040100

Setup Start *NS1*

Revision ID:

Item Name: Saddle Billet

Stop *NS2*

Start Date: 3/11/13 Start Qty: 50.00

50

Cust Item ID:

Required Date: 3/29/13 Req'd Qty: 50.00

50

Customer:

Reference:

Approvals: Process Plan: MLJ

Date: 13-03-13

Tooling:

Date:

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr

Revision Nbr

D6101

Rev B

100

0.00

100

PURCHASING

Purchasing

Memo

0.00

Purchasing

Issue P/O: 19369

- a) Description: Aluminum billet
- b) 6.00" x 6.250" x 2.00" thick
- c) Tolerance on length are +0.030"/-0.000"/E+/-0.008"
- d) Grain direction along 6.00" length
- e) Material: 7075-T7351 (QQ-A-250/12)
- f) Material certification required

CL 13/03/19 (50)

110

Receive & Inspect for Damage & Mat'l Certs

0.00

110

Packaging

Memo

0.00

Packaging

Ensure material certification is attached

29x

SP
13-4-11

Work Order ID 98456

March-12-13 1:56:07 PM

98456

Page 2

Item ID: D6101-001

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Saddle Billet

Start Date: 3/11/13 Start Qty: 50.00

50

Cust Item ID:

Required Date: 3/29/13 Req'd Qty: 50.00

50

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

120

QC6- Inspect dimensions to drawing

0.00

120

QC

Memo

0.00

Quality Control

Ensure Material certification comply to Dwg D

130

Identify as per dwg & Stock Location: _____

0.00

130

Packaging

Memo

0.00

Packaging

140

QC21- Final Inspection - Work Order Release

0.00

140

QC

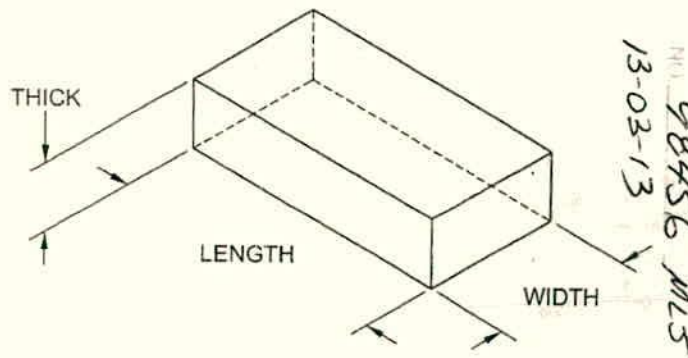
Memo

0.00

Quality Control

13/4/16 JF
B-04-15

SPECIFICATION CONTROL DRAWING



PURCHASE MATERIAL ACCORDING TO THE FOLLOWING TABLE. SPECIFY ALLOY, LENGTH x WIDTH x THICK (+0.030/-0.000), AND GRAIN DIRECTION AS SHOWN.

TOLERANCES ON ALL DIMENSIONS ARE +0.030/-0.000.

ALL DIMENSIONS ARE IN INCHES.

ACCEPTABLE SPECIFICATIONS FOR 7075-T7351 ALUMINUM ARE AMS-QQ-A-250/12, QQ-A-250/12, OR ASTM B209

Part No.	Alloy	Length	Width	Thick	Grain Direction
D6101-001	7075-T7351 (QQ-A-250/12)	6.000	6.250	2.000	Along 6.000 Length
D6101-003	7075-T7351 (QQ-A-250/12)	7.875	6.250	2.000	Along 7.875 Length
D6101-005	7075-T7351 (QQ-A-250/12)	5.000	8.250	2.500	Along 5.000 Length
D6101-007	7075-T7351 (QQ-A-250/12)	7.750	8.250	2.500	Along 7.750 Length
D6101-009	7075-T7351 (QQ-A-250/12)	8.700	8.250	2.500	Along 8.700 Length
D6101-011	7075-T7351 (QQ-A-250/12)	9.700	8.250	2.500	Along 9.700 Length
D6101-013	7075-T7351 (QQ-A-250/12)	10.100	8.250	2.500	Along 10.10 Length
D6101-015	7075-T7351 (QQ-A-250/12)	9.450	6.250	2.500	Along 9.450 Length
D6101-017	7075-T7351 (QQ-A-250/12)	6.350	6.250	2.250	Along 6.350 Length

RELEASED
09/07/15/W

B	ADDED D6101-015/-017, ADD ASTM B209	RF	09.04.23
A	NEW ISSUE	CP	01.03.30
REV.	DESCRIPTION	BY	DATE
DESIGN	CP	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED	<i>[Signature]</i>	DRAWING NO.	REV. B
MFG. APPR.	<i>[Signature]</i>	D6101	SHEET 1 OF 1
APPROVED	<i>[Signature]</i>	TITLE	SCALE
DE APPR.	<i>[Signature]</i>	SADDLE BILLET, 7075	NTS
DATE	09.04.23	<small>COPYRIGHT © 2001 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	

**Castle Metals®**

A. M. Castle & Co.

**PACKING SLIP/
CERTIFICATE OF CONFORMANCE**

Page 1 of 1

Shipment No:1709042

Ship From: A. M. Castle & Co. MONTREAL - CASTLE METALS 835-SELKIRK AVENUE POINTE CLAIRE, QUEBEC H9R 3S2		Sold To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA		Ship To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN		Deliver To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	
Date Shipped 10-APR-2013	F.O.B. ORIGIN	Freight Terms Prepaid		Carrier MANITOULIN		BOL No 1709042-2	

Shipment Details	Final Destination Branch - MON
-------------------------	---------------------------------------

Order No	Line No	Item No	Description
2768918	1	752237.MO	2.0000.PL.7075.T7351.ALUMINUM.US1.48.5000.144.5000 CUT 2SIDED TO 6.25 IN (+ .0310/- .0000 IN (GRAIN TO RUN ALONG 6")) X 6 IN (+ .0310/- .0000 IN (GRAIN TO RUN ALONG 6")) - ALUMINUM PLATE SAW SPECIFICATIONS: QQ-A-250/12
Purchase Order No	Part Number	Ordered Qty	Invoice Qty
19369	YOUR ITEM NUMBER: D6101-001	29.00 PCS	29.00 PCS

Details END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS ECCN # EAR99		SP 13-4-11					
Delivery No.	Mill	Heat Number	Mech Id	PCS	Width (IN)	Length (IN)	Shipped Qty(LBS)
118563292	KAISER ALUMINUM	752319A4		28			216.7647
118563292	KAISER ALUMINUM	752319A4		1			7.7416

These commodities/technologies are subject to US Export Administration & US State Dept. Regulations and, if intended for export, were/are exported thereunder. Diversion contrary to US Law is Prohibited.			
We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.			
Reviewed by Authorized Castle Metals Representative:		Date:	Name:

These commodities, technology or software were exported from the United States in accordance with the Export Administration Regulations. Diversion contrary to US law prohibited.
Date Printed: 10-APR-2013 01:35:53 PM

6137373870

613-737-33870

09:50:46 a.m. 04-11-2013

6/10

SHIP TO:

CASTLE METALS AEROSPACE
14400 SO FIGUEROA
GARDENA, CA 90248

KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215
Phone: (800) 367-2586

CERTIFIED TEST REPORT

SOLD TO:

AM CASTLE & CO- SOLD TO
1420 KENSINGTON RD
SUITE 220
OAK BROOK, IL 60523

Serial Number
4286828

CUSTOMER PO NUMBER: 199871		WORK PACKAGE:		CUSTOMER PART NUMBER: 752237		SHIP RUN/LOAD: 102525/22		GOVT CONTRACT NUMBER:	
KAISER ORDER NO: 1144735	LINE ITEM: 1	SHIP DATE: 14-JAN-2013	ALLOY: 7075	CLAD: BARE	TEMPER: T7351	PRODUCT DESCRIPTION: Kaiser Select® Plate			
WEIGHT SHIPPED: 7216 LB	QUANTITY: 5 PCS EST.	TRUCK B/L #: 2040546	GAUGE: 2.0000 IN (50.8000 MM)	DIAMETER/WIDTH: 48.500 IN (1231.9 MM)		LENGTH: 144.500 IN (3670.3 MM)			

MHU 1647743: LOT 622099A0: 1 pieces;
MHU 1647746: LOT 752319A4: 3 pieces;
MHU 1651903: LOT 752831A8: 1 pieces;

Certified Specifications

AMS 4078/RevJ
ASTM B 209/Rev10
BSS 7055/RevA
DPS 4.713/RevAH
MMS 159/RevT

AMS-QQ-A-250/12
ASTM B 594/Rev09
CMMP 025/RevU
GAMPS 9101/RevB
PS 21211/RevL

AMS-STD-2154/Rev98
BAC 5439/RevH
CSTI 006/RevD
GSS16100/RevG/Amd1

Test Code: 4297

Test Results

Lot: 622099A0 Cast 505

Drop 23

Ingot 4

Melted in USA

(ASTM E8/B557)
(EN 2002-1)

Tensile: Temper
T7351

Dir / # Tests
LT / 2 (Min:Max)

Ultimate KSI (MPA)
72.2 : 72.2
(498 : 498)

Yield KSI (MPA)
60.4 : 60.9
(416 : 420)

Elongation %
12.6 : 13.1

(ASTM E1004)
(EN 2004-1)

Conductivity %IACS :
(MS/M) :

42.1 Min
24.4 Min

42.1 Max
24.4 Max

(ASTM E1251)
Chemistry:
Actual(wt%)

SI
0.07

FE
0.16

CU
1.4

MN
0.02

MG
2.5

CR
0.19

ZN
6.0

TI
0.03

V
0.01

ZR
0.01

OTHER
TOT 0.05



JAN 18 2013

Page 1 of 3

KAISER ALUMINUM

CERTIFIED TEST REPORT

Trentwood Works - Spokane, WA 99215
Phone: (800) 367-2586

Serial Number
4286828

Lot: 752319A4 Cast 500 Drop 10 Ingot 2 Parent Lot: 616295A2 Melted in USA

(ASTM E8/B557)
(EN 2002-1)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T7351	LT / 2 (Min:Max)	71.1 : 71.4 (490 : 492)	60.2 : 60.5 (415 : 417)	11.9 : 12.1

(ASTM E1004)
(EN 2004-1)

Conductivity %IACS :	41.9 Min	42.0 Max
(MS/M) :	24.3 Min	24.4 Max

(ASTM E1251)

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual(wt%)	0.09	0.21	1.4	0.04	2.5	0.20	5.9	0.03	0.01	0.01	TOT 0.05

Lot: 752831A8 Cast 509 Drop 10 Ingot 4 Parent Lot: 620261A8 Melted in USA

(ASTM E8/B557)
(EN 2002-1)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T7351	LT / 2 (Min:Max)	73.2 : 73.2 (505 : 505)	62.4 : 62.7 (430 : 432)	12.2 : 12.7

(ASTM E1004)
(EN 2004-1)

Conductivity %IACS :	41.6 Min	41.8 Max
(MS/M) :	24.1 Min	24.2 Max

(ASTM E1251)

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual(wt%)	0.07	0.17	1.4	0.06	2.5	0.19	5.6	0.03	0.01	0.01	TOT 0.05

ALLOY LIMITS

	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER	MAX
7075												
MIN(wt%)	0.00	0.00	1.2	0.00	2.1	0.18	5.1	0.00	0.00	0.00	EACH	0.05
MAX(wt%)	0.40	0.50	2.0	0.30	2.9	0.28	6.1	0.20	0.05	0.05	TOT	0.15

Aluminum Remainder

TEST NOTES

Metal represented by this test report was 100% immersion ultrasonically tested from one side with 3mm dead zones top and bottom and meets the Class A and Class B requirements of all specifications referenced on this test report. No surface marking of sonic indications is performed.



**KAISER
ALUMINUM**

Trentwood Works - Spokane, WA 99215
Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number
4286828

**CERTIFICATION**

Kaiser Aluminum Fabricated Products, LLC (Kaiser) hereby certifies that metal shipped under this order was melted in the United States of America or a qualifying country per DFARS 225.872-1(a), was manufactured in the United States of America, and meets the requirements of DFARS 262.225 for domestic content. This material has been inspected, tested and found in conformance with the requirements of the applicable specifications as indicated herein. For material thicknesses outside specification limits, mechanical properties are as shown herein and chemical composition meets specification requirements. All metal which is solution heat treated complies with AMS 2772. Any warranty is limited to that shown on Kaiser's standard general terms and conditions of sale. Test reports are on file, subject to examination. Test reports shall not be reproduced except in full, without the written approval of Kaiser Aluminum Fabricated Products, LLC laboratory. The recording of false, fictitious or fraudulent statements or entries on the certificate may be punished as a felony under federal law. ISO-9001:2000 certified.

JAMES HEMENWAY, LABORATORIES SUPERVISOR

Page 3 of 3

10 April 2013 13:36:38 PM

EXPÉDITEUR - PAR / SHIPPER, PER:		insérer le nom du créateur / Insert creator's name		Signature / Date		Please Print Name Here	
No du livreur / Shipper No.: 1709042-2		Date		Driver's Signature		Name	
Per /		Signature du conducteur /		Date		Driver's Signature	

Toutes les pages doivent être signées/ All pages must be signed

Page 2 of 2

FAX

613-632-5246

Roxanne

BON DE CONNAISSANCE NOMINATIF ABRÉGÉ - ORIGINAL - NON NÉGOCIABLE STRAIGHT BILL OF LADING - SHORT FORM - ORIGINAL - NOT NEGOTIABLE REÇU, Sujet aux classifications et tarifs en vigueur à la date d'émission du présent bon de connaissance RECEIVED, Subject to the classification and tariffs in effect on the date of issue of this Bill of Lading Le bien décrit plus bas, en bon état apparent, exception faite comme noté (le contenu et la condition du contenu de l'emballage inconnus), marqué, consigné et destiné comme indiqué ci-après, que le dit transporteur (le mot « transporteur » signifiant dans ce contrat toute personne ou société en possession du bien) accepte de le transporter à l'endroit habituel de livraison de son client. The property described below, in apparent good condition and condition of contents of packages unknown, marked, consigned, and destined as indicated below, which said carrier (the word carrier being understood throughout this contract as meaning any person or corporation in possession of the property under the contract) agrees to carry to its usual place of delivery at said destination, if on its route, otherwise to deliver to another carrier on the route to said destination. It is mutually agreed, as to each carrier of all or any said property over all or any portion of said route to destination, and as to each party at any time interested in all or any of said property, that every service to be performed hereunder shall be subject to all the terms and conditions of the Uniform Domestic Straight Bill of Lading set forth (1) in Uniform Freight Classification in effect on the date hereof, if this is a rail or water shipment, or (2) in the applicable motor carrier classification or tariff if this is a motor carrier shipment.		No du livreur / Shipper No.: 1709042-2 De - A / FROM AT: A. M. Castle & Co. 835-SELKIRK AVENUE POINTE CLAIRE QC H9R 3S2 CAN
MANITOULIN TRANSPORT 1-800-265-1485  18 04 46 81		d expédition / Ship Date: 10-APR-2013
Consigné à / Consigned To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY ON K6A 1K7 CAN	Directives de livraison / Delivery instructions: TOUS LES CHARGEMENTS DOIVENT ÊTRE COUVERTS. LA LISTE D'EMBALLAGE DE LIVRAISON ET LES RAPPORTS DE TEST OU CONSIGNATAIRES REFUSERONT. ALL LOADS MUST BE TARPED. DELIVER PACKING LIST AND TEST REPORTS OR CONSIGNEE WILL REFUSE.	Modalités de paiement / Payment Terms: Prepaid REMETTRE LES FACTURES DE TRANSPORT À REMIT FREIGHT INVOICES TO: RayTrans Management, Inc. PO Box 1210 Washington PA 15301
Nom du Transporteur / Carrier Name: MANITOULIN	Couverture d'assurance additionnelle / Additional Insurance Coverage: La valeur acceptée ou déclarée de la propriété ci bas spécifiée par le transporteur n'excède pas : The agreed or declare value for the property is hereby specifically stated by the shipper to be not exceeding: _____ par / per _____	

Détail de livraison / Shipment Breakdown:

Quantité / Quantity	Emballage / Packaging	Classe / Class	Commodity
1	BUNDLE	FAK 50	Metal Product

Poids du chargement / Shipment Weights:

Produit / Product	448 LBS
Dunnage	0 LBS
Gross	448 LBS

TOTAL 1 SKID

ORDER DETAIL:

Bon de commande du client / Customer PO	No de commande du client / Sales Order No.	No de ligne / Line No.	No. d'Item Castle / Castle Item No.	Quantité livrée / Quantity Shipped	Castle UOM
19369	2768918	1	2768918*1*1	29	PCS
19369	2768918	2	2768918*2*1	22	PCS

Sujet à la section 7 des Conditions générales du Bon de connaissance applicable. Si cette expédition est livrée au consignataire sans recourir à l'expéditeur, l'expéditeur doit signer les déclarations suivantes. Subject to Section 7 of Conditions of applicable bill of Lading. If this shipment is to be delivered to the consignee without recourse to the consignor, the consignor shall sign the following statements.	Si l'expédition se déplace entre deux ports par un transporteur par voie maritime, la loi exige que le bon de connaissance stipule s'il s'agit « du poids du transporteur ou de l'expéditeur ». NOTE: Là où la charge est en fonction de la valeur, les expéditeurs doivent déclarer spécifiquement par écrit la valeur du bien acceptée ou déclarée. If the shipment moves between two ports by a carrier by water, the law requires that the bill of lading shall state whether it is "carrier's or shipper's weight." NOTE: Where the rate is dependent on value, the shippers are required to state specifically in writing the agreed or declared value of the property.
Le transporteur ne doit pas livrer ce chargement sans avoir acquitté les frais de transport et les charges légales. The carrier shall not make delivery of this shipment without payment of freight and all other lawful charges.	L'expéditeur déclare spécifiquement que la valeur acceptée ou déclarée du bien ne dépasse pas. The agreed or declared value of the property is hereby specifically stated by the shipper to be not exceeding
CETTE EXPÉDITION DOIT ÊTRE REÇUE ET TRANSPORTÉE CONFORMÉMENT À TOUTES LES MODALITÉS ET CONDITIONS GÉNÉRALES DU BON DE CONNAISSANCE COMPAGNIES DE NAVIGATION. THIS SHIPMENT IS TO BE TENDER RECEIVED AND TO BE CARRIED SUBJECT TO ALL TERMS AND CONDITIONS OF THE STEAMSHIP COMPANIES CURRENT FORM BILL OF LADING	Le client est responsable de tous les documents d'expédition et de se conformer à toutes les lois canadiennes et américaines incluant, mais sans s'y limiter, les lois et règlements américains et canadiens relatifs à l'exportation. Customer is responsible for all shipping documents and compliance with United States and Canadian laws, including but not limited to U.S. and Canadian Export laws and regulations.
CE DOCUMENT CERTIFIE QUE LES ARTICLES MENTIONNÉS CI-DESSUS SONT PROPREMENT CLASSIFIÉS, DÉCRITS, EMBALLÉS, MARQUÉS ET IDENTIFIÉS, ET SONT EN ÉTAT D'ÊTRE TRANSPORTÉS CONFORMÉMENT AUX RÈGLEMENTS DU MINISTÈRE DES TRANSPORTS. THIS IS TO CERTIFY THAT THE ABOVE NAMED ARTICLES ARE PROPERLY CLASSIFIED, DESCRIBED, PACKAGED, MARKED AND LABELED, AND ARE IN PROPER CONDITION FOR TRANSPORTATION ACCORDING TO THE APPLICABLE REGULATIONS OF THE DEPARTMENT OF TRANSPORTATION.	

Jacques

64801

10-4-13

1 SKID



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO19369

Purchase Order Date 3/19/13

PO Print Date 3/19/13

Page Number 1 of 2

Order From :

VC-MET001

METAUX CASTLE
A.M. CASTLE & CO. (CANADA) INC. - C/O 910720
P.O. BOX 4090 STN A
TORONTO, ON M5W OE9
CA

Contact Name

Vendor Phone

Vendor Fax

Vendor Account Nbr

514 694 9575

514 695 3281

Buyer

Requisition Nbr

Tax Resale Nbr

Terms

Currency

FOB

Chantal Lavoie

10127-2607

Net 30

CAD

Destination-Collect

M125079

Ship To :

DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

FAKED
13/03/13

Line Nbr	Reference Revision ID Vendor Part Number	Description/ Mfg ID	Req Date/ Taxable	Req Qty/ Unit of Measure	Ship Method	Unit Price	Extended Price
1	M4130NS063	4130 Sheet .063	3/29/13 Yes	36.00 sf	Yours ppd	\$10.1667	\$366.00
		Spec: In...					
		MATERIAL: AISI 4130N STEEL SHEET AS PER MIL-S-18729 OR AMS 6350 OR AMS 6351 OR AS PER AMS 6345					
2	D6101-001P	7075-T7351 2X6X6.25	3/29/13 Yes	50.00 Each	Yours ppd	\$36.0000	\$1,800.00
		Spec: In...					
		As per Dwg: D6101 Rev: B B98456 Aluminum billet: 6.00"x6.250"x2.00" thick Tolerance on length are +0.030/-0.000"/E+/- 0.008" Grain Direction along 6.00" length Mat: 7075-T7351 (QQ-A-250/12)					
3	D6101-003P	7075-T7351 2X6	3/29/13 Yes	50.00 Each	Yours ppd	\$48.0000	\$2,400.00

recu 29
recu 21X
SPB-4-11 SPB-4-5
recu 28x
SPB-4-5

No substitution or deviation without
consent.

Certificate of Conformity or Material
Certification required YES NO

Change Nbr:

1

Change Date: 3/19/13